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DEPARTMENT OF PHARMACY
University of Iowa

ANNOUNCEMENT

1898-99



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FOURTEENTH ANNUAL ANNOUNCEMENT

OF THE

DEPARTMENT OF
PHARMACY

OF THE

State University of Iowa

IOWA CITY, IOWA

1898-99

PUBLISHED BY THE UNIVERSITY

1898

Department of Pharmacy.

Faculty.

CHARLES A. SCHAEFFER, A. M., PH. D., LL. D.,
President.

EMIL LOUIS BOERNER, PH. G., PHAR. D.,
Professor of Pharmacy, Director of the Pharmaceutical Laboratory and
Dean of the Faculty.

LAUNCELOT W. ANDREWS, PH. D.,
Professor of Chemistry and Director of the Chemical Laboratory.

THOMAS H. MACBRIDE, A. M., PH. D.,
Professor of Pharmacognosy and Director of the Microscopical Labora-
tory.

CHARLES S. CHASE, A. M., M. D.,
Professor of Materia Medica.

BOHUMIL SHIMEK, C. E.,
Professor of Botany.

E. W. ROCKWOOD, B. S., M. D.,
Lecturer on Toxicology.

PERCY H. WALKER, M. S.,
Instructor in Chemistry.

LESTER T. JACKSON, B. S.,
Assistant in Chemical Laboratory.

GEORGIA KNAPP, PH. G.,
Assistant in Pharmaceutical Laboratory.

ZADA M. COOPER, PH. G.,
Assistant in Pharmaceutical Laboratory.

DEPARTMENT OF PHARMACY.

The Department of Pharmacy of the State University of Iowa is designed to furnish pharmacists, and those desiring to engage in pharmacy, an opportunity to acquire a thorough practical education in the departments of science most intimately connected with the practice of that profession. A technical education, such as that offered by the schools of pharmacy, and seldom if ever acquired in drug stores, is as necessary to the accomplished pharmacist as is the special training of a medical course to the physician. The day is not far distant when the pharmacist who is not provided with the evidence of skill which the college diploma furnishes, will labor under equal disadvantages with the non-graduated physician of to-day.

The experience of the past thirteen years has thoroughly demonstrated the practicability of the courses in this Department. This is shown by the readiness with which students of even one session find and hold employment in drug stores, at salaries much higher than they could possibly command without the college training, and by the fact that a much larger percentage of students who have completed one year's work in this school pass the examinations before the State Board of Pharmacy, than of candidates who go before the Board from drug stores, even after several years' experience.

Incidentally, therefore, the courses are well calculated to aid those who desire specially to qualify for the examinations of the State Board of Pharmacy.

It is the aim of the Faculty to make the courses so practical that students will find it not only professionally but also pecuniarily profitable to spend a season or two in the Department.

Sec. 2589 of the Code, relating to the registration of pharmacists, was amended by the Legislature on March 26th, 1898, to read as follows:

Sec. 2589. Examinations—registration. The commission, at such times and places as it may select, and in such manner as it may determine upon, shall examine all persons desiring to engage in and conduct business as registered pharmacists, as contemplated in the preceding [section, and, if found competent, the applicant's name shall be entered in the registry book of certificate holders.] Graduates of pharmacy holding a diploma from the State University, or from any school or college of pharmacy requiring a course of study and laboratory work equivalent to that prescribed by the said University in its catalogue for the school year 1897–98, shall be entitled to registration as pharmacists without examination. Pharmacists thus registered have the sole right to keep and sell all medicines and poisons except intoxicating liquors.

The fourteenth annual course of lectures will begin on Wednesday, September 14, 1898, and close on Wednesday, March 29, 1899. There will be a vacation commencing December 22, 1898, and ending January 4, 1899.

Building.

This school is comfortably located in a three-story building, erected at a cost of about fifty thousand dollars, and furnishing about twenty-five thousand square feet of floor space, perhaps the largest accommodations in the way of room enjoyed by any school of pharmacy in this country. The equipment of this building is of the most modern, and in keeping with the advancing stage of the science. Through liberal appropriations periodically made by the Legislature and the Board of Regents, the accumulated equipment of some years is being constantly enlarged, and affords excellent facilities for instruction. The lecture-rooms are provided with all desirable conveniences for class demonstration, and with large tablet chairs. The laboratories are especially roomy, the chemical and pharmaceutical laboratories occupying each a floor space of 54x140 feet, divided into two large general and a number of smaller special laboratories. Two forty-horse power boilers supply the steam for all purposes, and a seven-horse power gas engine furnishes the power for drug mill, dynamo, etc.

Preliminary Examination.

Every applicant for admission to the Junior class will be required to pass a preliminary examination in English, penmanship, geography, and arithmetic, or give satisfactory evidence of having completed such studies in a grammar school.

Admission to the Senior class will be by examination in the branches of study taught during the Junior year. Students presenting evidence of having passed the Junior examination in another recognized college or school of pharmacy will be admitted without further examination.

Courses of Instruction.

The courses of instruction embrace lectures on pharmacy, *materia medica*, pharmacognosy, botany, chemistry, and toxicology, with practical work in pharmaceutical, microscopical, and chemical laboratories, and almost daily recitations during the term.

About two hundred and twenty-five lectures are delivered annually to each of the Junior and Senior classes and more than four hundred hours are devoted by each student to practical work in the several laboratories, and to recitations.

Following the precedent established some years ago by some of the older colleges of pharmacy, the graded course is adopted. The full course extends over two years, and the students are divided into Junior and Senior classes, composed of first and second course students, respectively. This arrangement, while adding greatly to the labors of the Faculty, proves of great benefit to students, by enabling the professors not only to introduce new and profitable subjects in their departments, but by extending their lectures over two sessions, to take up the elementary work during the first, and the more advanced during the second year.

Pharmacy.

PROFESSOR BOERNER.

The introductory lectures to the Junior class will embrace a short review of the pharmacopceias of the United States, England, France,

and Germany; the various systems and appliances of weights and measures in use by the leading nations; the apparatus and methods necessary for the determination of the specific gravity of solids and liquids, and the sources and management of heat for pharmaceutical purposes. These will be followed by descriptions and illustrations of apparatus necessary to conduct properly the processes of percolation, filtration, comminution, sifting, solution, precipitation, neutralization, evaporation, distillation, sublimation, etc.

The official drugs will be considered by groups, the classification being based upon the more prominent proximate constituents contained in the drugs under consideration, beginning with those substances containing prominently lignin, and passing in order to those containing starches, sugars, gums, resins, oleo-resins, fixed oils, volatile oils, alkaloids, glucosides, neutral principles, etc.

All the preparations of a drug will be considered together. To aid the student in memorizing the strength of official preparations, these will be considered by pharmacopæcial classifications.

The lectures to the Senior class will begin with a short review of the subjects embraced in the Junior course, followed by a critical study of the preparations of the United States Pharmacopœia, classified according to the character of their active or medicinal constituents. The relation they sustain to each other will be considered, and whenever practicable, the methods of their preparation will be demonstrated, the aim being to apply the theories and general principles taught in the Junior course.

The concluding lectures of the course will be devoted to extemporaneous pharmacy—such as the preparation of emulsions, pills, suppositories, solutions, ointments, etc., and the dispensing of physicians' prescriptions, the preparation of toilet articles and perfumery, etc.

The adulteration and sophistication to which official preparations are subject, and the methods for their detection will be noticed to the extent which their importance may demand.

Chemistry.

PROFESSOR ANDREWS.

The laboratory work will be divided into two distinct courses, both of which are requisite for graduation, but only one of which can be taken by the student during either of the two college years.

Junior Year. The Junior year comprises instruction in the general principles of chemistry, and in qualitative analysis, arranged with special reference to pharmaceutical preparations.

The lectures elucidate the fundamental laws of the science, demonstrating them, whenever possible, by numerous experiments performed before the class. The chief metallic and non-metallic elements, with their more important compounds and reactions are considered. The practical application of the principles of chemical calculation, by which the compositions of compounds may be deduced from their formulas, in consequence of its great importance to the pharmacist, is carefully inculcated. Instruction in details of the work, and in matters of manipulation is conveyed in the laboratory course, which occupies, on an average, seven hours a week. Here the student is taught by a systematically arranged series of experiments the properties of the commonest chemical agents, and how to handle chemical apparatus properly. When some manipulative skill is attained, qualitative analysis is taken up. The characteristic reactions of bodies as applied to their detection in mixtures are made familiar in a series of examples, beginning with the simplest substances, and passing gradually to the more complex, such as are met with in the practice of Pharmacy. The student is expected at the conclusion of this course to be able to test the purity of official preparations and to detect the nature of any adulteration which may be present. He is required to pass a practical examination covering this ground.

Senior Year. Quantitative analysis is taken up, particular emphasis being laid upon volumetric processes, as these, by virtue of the ease and rapidity with which they are executed, are of the greatest general usefulness.

The chemical reactions used for detecting morphine, strychnine and other alkaloidal and coal tar products of pharmaceutical importance

are studied in the laboratory and the class is exercised in the practical analysis of mixtures of such substances.

Practice is given in the valuation of numerous inorganic and organic pharmaceutical preparations, and in the methods of controlling or determining their exact strength. A laboratory examination concludes the course.

Pharmacognosy.

PROFESSOR MACBRIDE.

This course is intended to present the organic *Materia Medica* from the standpoint of the biologist, with a view to enabling the student to handle his materials intelligently, and to identify them in accordance with the recognized principles of biologic science. The various drugs of organic origin are taken up in the order of their natural classification, the principal facts as to their nature, origin and preparation are set forth in a series of lectures illustrated by abundant material in original packages, as well as by herbarium specimens (in the case of plants), charts, drawings, microscopic preparations, etc.

Winter. One hour a week, commencing about November 1.

Ample cabinets of *Materia Medica* are at hand, and free use is constantly made of the magnificent collections now found in the Herbarium of the State University.

Text-books:

Flueckiger's *Principles of Pharmacognosy*.

Maisch's *Materia Medica*.

Bentley and Trimen's *Medicinal Plants*.

Millspaugh's *American Medicinal Plants*.

The *United States Dispensatory*.

The *National Dispensatory*.

Botany.

PROFESSOR SHIMEK.

Three courses are offered in Botany:

Course 1. General Botany. This course is devoted to a careful study of the elements of the science. The various organs of the plant

are reviewed and the local autumnal flora is made to afford abundant material to illustrate, in the hands of the student, the morphology of roots, stems, and leaves, as well as the ordinary principles of floral analysis, and the means of specific identification. Types of the principle orders of greatest economic value are studied in detail.

Junior Year. Fall term. Two hours a day for the first six weeks.

Course 2. The second course is devoted to an inquiry into the life and growth of the plant; the cell, its morphology and products; the morphology of the entire plant structure as a means of identification. It includes laboratory work with the microscope and evening lectures illustrated by numerous stereopticon views.

Junior Year. One hour a week during fall and winter terms, following Course 1.

Course 3. Microscopic Technology. This course includes instruction in the use of the compound microscope, and its employment in the investigation of vegetable structures. The student is supplied with an instrument and all necessary reagents and apparatus, and is taught the various modes of cutting, staining, and mounting histological preparations. Practical instruction is given in the use of the microscope in the identification of crude drugs as well as in the detection of adulteration. Each student taking this course prepares at the laboratory for his own use, a cabinet of microscopic slides, illustrative of many of the more important official drugs.

Senior Year. Winter term. Two hours a week.

Students in all these courses are afforded ample laboratory facilities, and the splendid botanical collections in the University Herbarium are always available for illustrations and comparative study.

The following list includes the principal text-books:

Macbride's Lessons in Elementary Botany.

Wood's Class Book of Botany.

Gray's Manual of Botany.

Goodale's Physiological Botany.

Materia Medica.

PROFESSOR CHASE.

This branch will be presented to the students of the Pharmacy Department from a two-fold standpoint, namely, that of extemporaneous pharmacy and the prescribing physician. To this end a brief outline course in physiology illustrative of the functions of the more prominent organs of the body will precede the discussion in detail of the subject matter that more properly belongs to this chair. However, the professor in charge feels that the pharmacist can best serve those who seek his aid by having a general apprehension of a few of the salient points at least that belong chiefly to the physiologist.

Junior Year. The members of the Junior class will be given preliminary definitions of the subject; also various terms such as alkaloids, glucosides, leucomaines, ptomaines, gums, resins, etc., etc. Also the various official preparations will be defined and discussed. The routes and modes of administration of remedies, their physiological and toxicological action will likewise be considered. The origin, source, composition, chemical characteristics and physical properties, the modes of preparations, etc., of each drug will be noted briefly, their more elaborate consideration being referred to the chair of Pharmacognosy.

The subject of prescription writing including incompatibles and their classifications, their instantaneous detection and means of avoidance will be subjects for careful consideration and drill. Cumulative action of drugs in the system — how it may occur and how avoided — will also be discussed. The common and metric systems of weights and measures will receive due attention. Finally with subject of dosage considered at length, the student will be assumed to be ready to be introduced formally to the chief drugs made use of in his profession. To this end organic drugs of both vegetable and animal origin will be first considered. The student will be required to make full and exhaustive notes on each lecture at the time of its delivery, and also present a carefully prepared transcription of the textual matter found in the text-book used. A very excellent and natural grouping of drugs considered will be followed, based upon the dominant action of

the leading drug of the group or class to which such drugs may be assigned. In this manner systematic study is preserved and the subject matter much more easily retained. Frequent quizzing, recitations and written tests supplement the student's part of the work, thereby facilitating the retention of the facts presented.

Senior Year. This course is an amplification of the preceding. The Senior class is given a rapid review of the subject-matter of the Junior course and then completes the unfinished portion of this part of his work. A brief course in Inorganic Materia Medica is likewise presented to the members of this class, comprising the more important drugs made use of in pharmacy. With frequent reviews, tests, drills, etc., this class will, before the termination of the session, complete the subject, review and pass it. Prescription writing will be dwelt upon in this course as in the preceding year so as to make sight reading and detection of errors possible. The physiological action of drugs is also specially presented, antagonistic and synergistic remedies being noted. Thus with a review of the entire subject, this class is led to a general comprehension of the fundamental principles and knowledge of the leading drugs used in this important branch of their course.

Toxicology.

PROFESSOR ROCKWOOD.

The course consists of one lecture a week during the entire session. The general action of poisons is first considered, then the most important ones are treated separately. Their physical properties and chemical action are noticed, together with their uses, and most common sources as toxicological agents. The symptoms of the different classes are given, and the treatment for each. Especial attention is paid to antidotes. Methods of testing suspicious substances, as well as the examination of secretions and excretions, are explained and illustrated by experiments.

Pharmaceutical Laboratory.

The pharmaceutical laboratory, provided with the necessary conveniences, apparatus, and material for thorough practical instruction

will be open daily during the greater part of the school year. The instruction will embrace practice in the use of thermometers, hydrometers, specific gravity bottles, and balances; the preparation of tinctures, syrups, oleo-resins, solid and fluid extracts, pill masses, compound powders, solutions, hypodermic and compressed tablets, and many chemicals, such as the official iron solutions, scale salts of iron, mercury and lead compounds, which the apothecary should and can prepare for himself, both with advantage and profit; extemporaneous pharmacy, including the preparation of emulsions, pills, plasters, suppositories, prescriptions, the application of pharmacopoeial tests, the manufacture of handkerchief extracts, colognes, sachet powders, etc.; in short, practice in all the varied duties of a first-class pharmacy. The greatly improved facilities of the laboratory building will permit of the introduction of work found impracticable for preceding classes.

Instruction in this branch is now looked upon as one of the utmost importance in pharmaceutical education, especially as much of the work formerly conducted entirely by the apothecary is now in the hands of large manufacturing establishments, and the student in pharmacy is thereby deprived of many valuable opportunities for gaining the necessary experience and self-confidence in drug stores, which a personal acquaintance with the various manipulations is sure to bring about. The instruction in this laboratory will be individual; the progress made will therefore depend upon the student's knowledge and exertions.

All students desiring to graduate from this school are required to pursue this course during the Junior and Senior years.

Students will be furnished with all necessary apparatus and material, but will be required to pay for all breakage or damage to apparatus while in their possession.

Tuition.

The fee for tuition is \$75 for each year, of which \$50 is payable on or before October 1, and the remainder on or before January 10. There are no extra fees whatever, but for each laboratory course in chemistry or practical pharmacy there is required a deposit of \$3 to cover breakage and to insure the return of all keys at the close of the session. This sum (breakage, if any, deducted) is returned to the

student on presentation of the certificate of the professor in charge of the laboratory in question.

The above statement of fees is now in effect, and will be understood to apply to all students in the Department, entirely irrespective of the date of matriculation.

All fees must be paid to the Secretary of the University, William J. Haddock.

All students who are delinquent in the payment of tuition will be suspended from the Department until the tuition is paid.

Qualifications for Graduation.

Every person upon whom the diploma of this Department is conferred must be of good moral character, have arrived at the age of twenty-one years, have attended two full courses of lectures, the last one of which shall have been in this school, including two full courses of pharmaceutical, microscopical, and chemical laboratory practice, and shall pass satisfactory written examinations in all the branches taught in this school, when he shall be entitled to the degree of Graduate in Pharmacy (Ph. G.).

Final Examinations.

The examinations of candidates for graduation will take place during the week preceding the close of the lecture season.

Weekly Examinations.

As auxiliary to the lectures, the professors will hold frequent quizzes in their respective departments, to serve as reviews of the subjects discussed in the lectures.

Text-Books.

Pharmacy—For Juniors—U. S. Pharmacopœia, Remington's Practice of Pharmacy, National Formulary. For Seniors—All the above, Caspari's Treatise on Pharmacy, Coblenz' Handbook of Pharmacy, Scoville's Art of Compounding.

Chemistry—Andrews' Qualitative Analysis, Long's Experimental and Analytical Chemistry.

Pharmacognosy—Maisch's Organic Materia Medica.

Materia Medica—White & Wilcox's Materia Medica and Therapeutics, Sayre's Organic Materia Medica and Pharmacognosy, Culbreth's Materia Medica and Pharmacology.

Botany—Macbride's Lessons in Elementry Botany, Gray's or Wood's Manua , Bastin's College Botany.

Reference Books.

U. S. Dispensatory, National Dispensatory, Fresenius' Analytical Chemistry, Hoffman and Power's Examination of Medicinal Chemicals, Gray's Botanical Text-Book, Vol. II.

Board.

The cost of board in clubs is from \$1.50 to \$2.50 per week; in private houses from \$2.50 to \$4.00 per week. Rooms can be obtained at from 50 cents to \$1.50 per week for each student.

Libraries.

The general library of the University is accessible to students of all departments during eight hours of every week-day. Books may also be drawn for outside use.

One hundred and thirty American and European periodicals are taken, and are kept upon the tables of the reading-room throughout the year.

For further particulars address Emil L. Boerner, Dean of the Department of Pharmacy, Iowa City, Iowa.

GRADUATES, MARCH, 1898.

Brinton, Gilbert Edward	Park, Charles Grant
Buss, Frederic John	Prader, Dolph Christian
Gearhart, Newton Arthur	Tague, Marion Samuel
Nixon, Robert Burns	White, Louis Mortimore

MATRICULATES.

SENIOR CLASS.

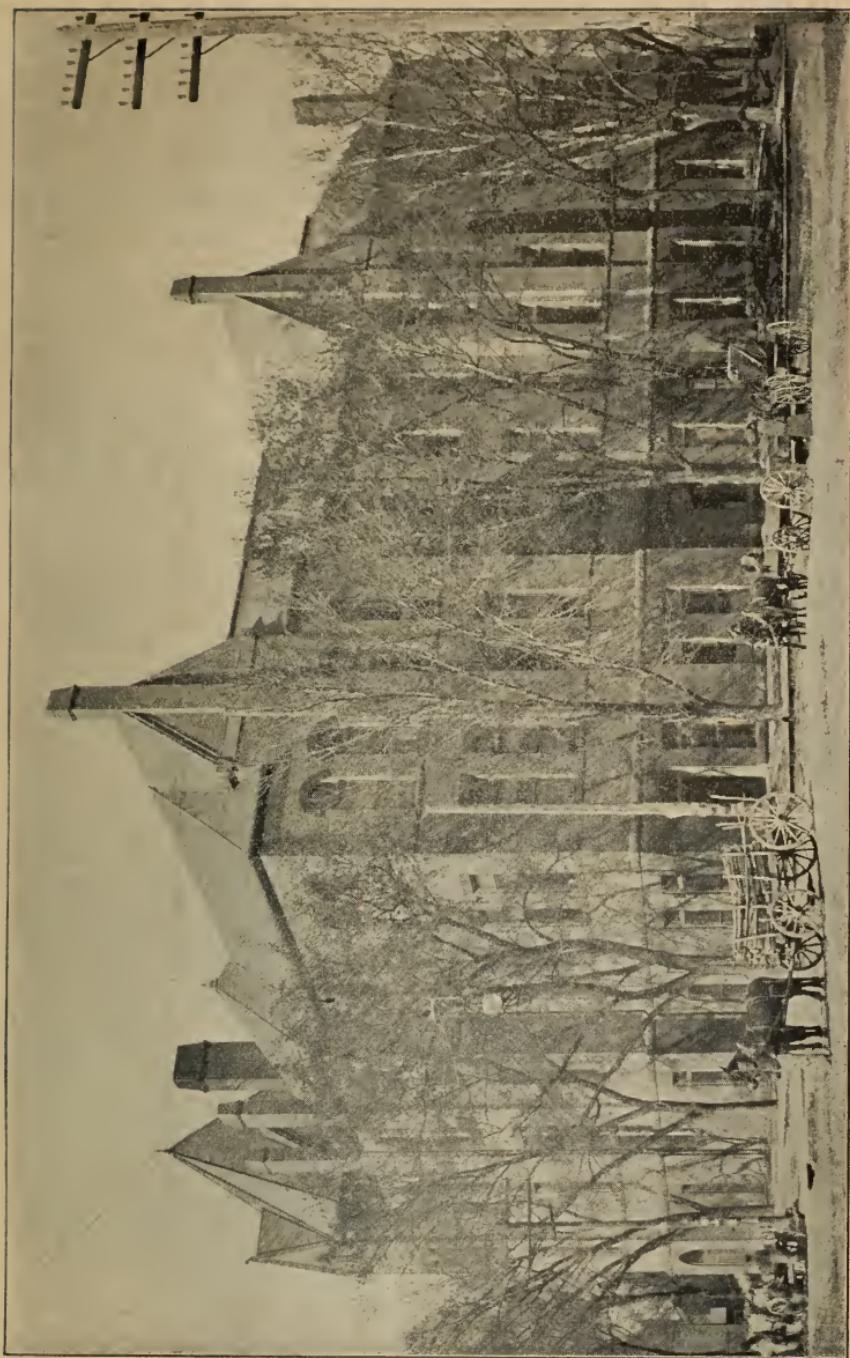
NAME.	RESIDENCE.
Brinton, Gilbert Edward	Brighton.
Buss, Frederic John	Hammond, N. Y.
Gearhart, Newton Arthur	Hopkinton.
Nixon, Robert Burns	Shambaugh.
Owens, David Austin (Special)	Cresco.
Park, Charles Grant	Wilton.
Prader, Dolph C.	Monticello.
Tague, Marion Samuel	Vinton.
White, Louis Mortimore	Maynard.

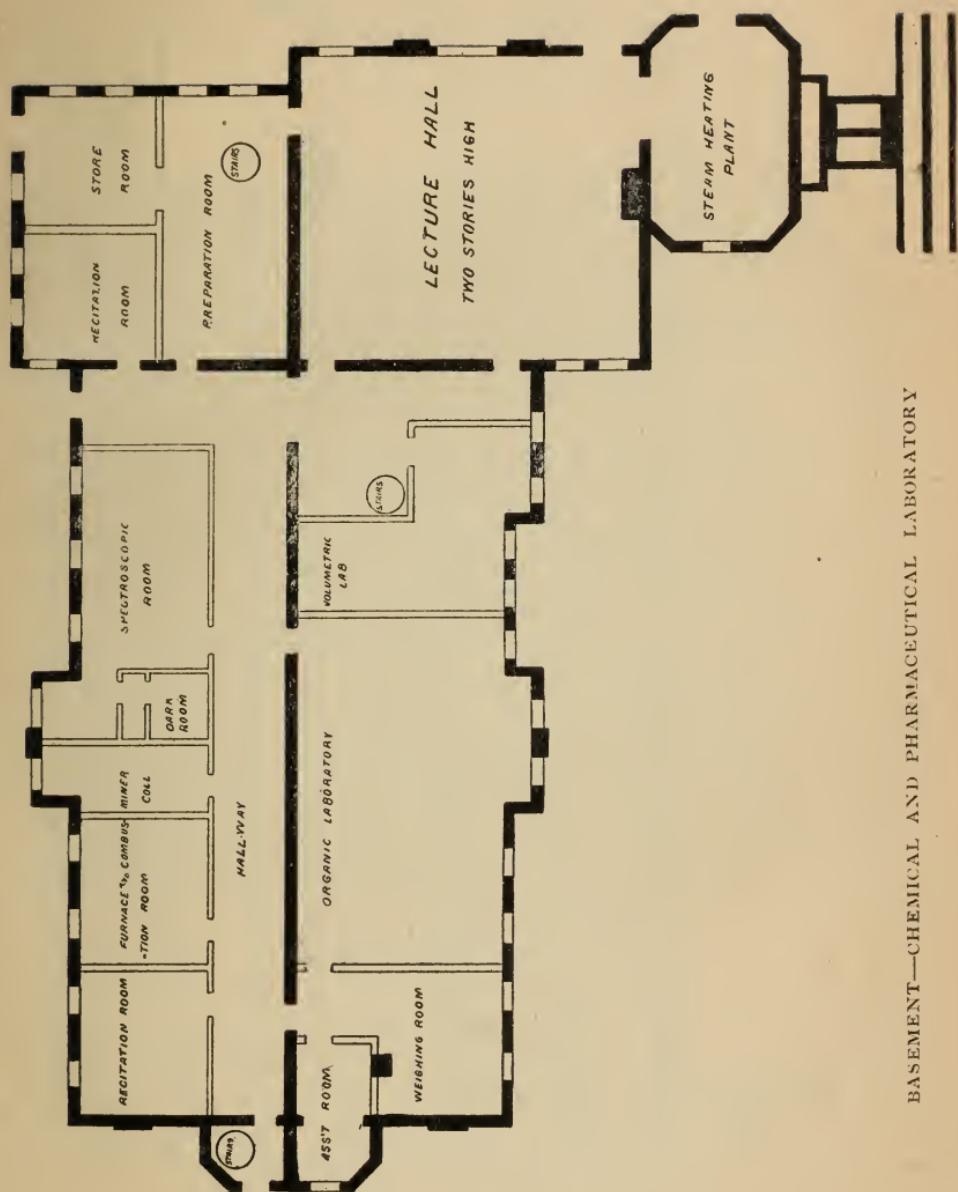
JUNIOR CLASS.

NAME.	RESIDENCE.
Adam, William Charles	Volga.
Ashford, George Washington	Homer, Neb.
Barr, Henry James	Vinton.
Benham, Lewis Albert	Shelby.
Carney, Edward Holland	Cedar Falls.

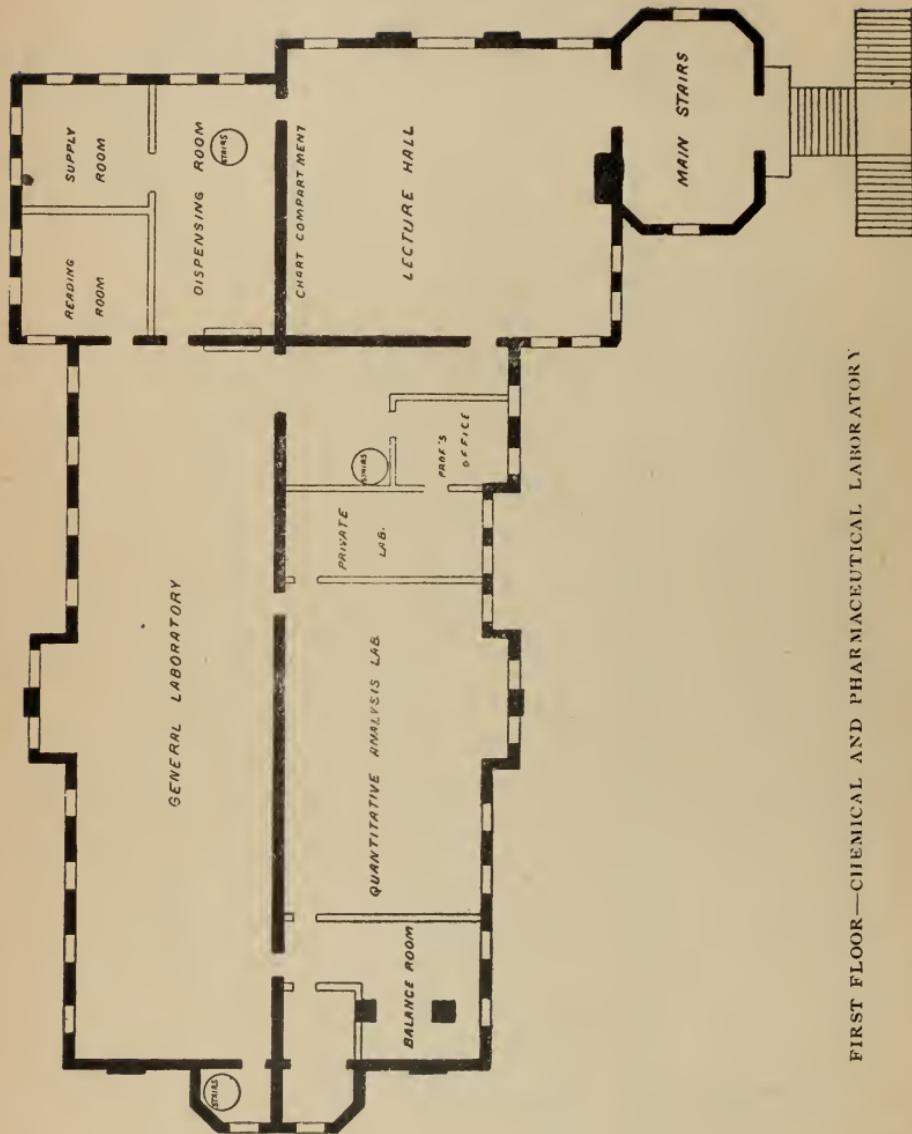
NAME.	RESIDENCE.
Conry, William LeRoy	Waterloo.
Dabney, Maurice John	Oakland,
Delaney, Jerry C.	Milligan, Neb.
Doran, John William	Durant.
Dorgeloh, Henry	Anamosa.
Dyhr, William	West Branch.
Heston, Harry	Atalissa.
Hieber, Harvey George	Cedar Falls.
Junger, William Fred	Reinbeck.
LeFevre, Louis Kountz	Montrose.
McGuan, Charles	Iowa City.
McPheeters, Ben Brown	Jefferson.
Mittvalsky, Edward Charles	Cedar Rapids.
Nebergall, George N.	Davenport.
Nichols, Fred Claudius	Green Mountain.
Phillips, Amy Drake	Fertile.
Reburn, William Warren	New Albin.
Schaumloeffel, Marie Berenice	Ravenwood, Mo.
Schnier, John Valentine	Worthington.
Strayer, Lucile I.	Waterloo.
Swan, Wallace Cantwell	Morning Sun.
Updegraff, Simon L.	Hedrick.

CHEMICAL AND PHARMACEUTICAL BUILDING AND LABORATORY

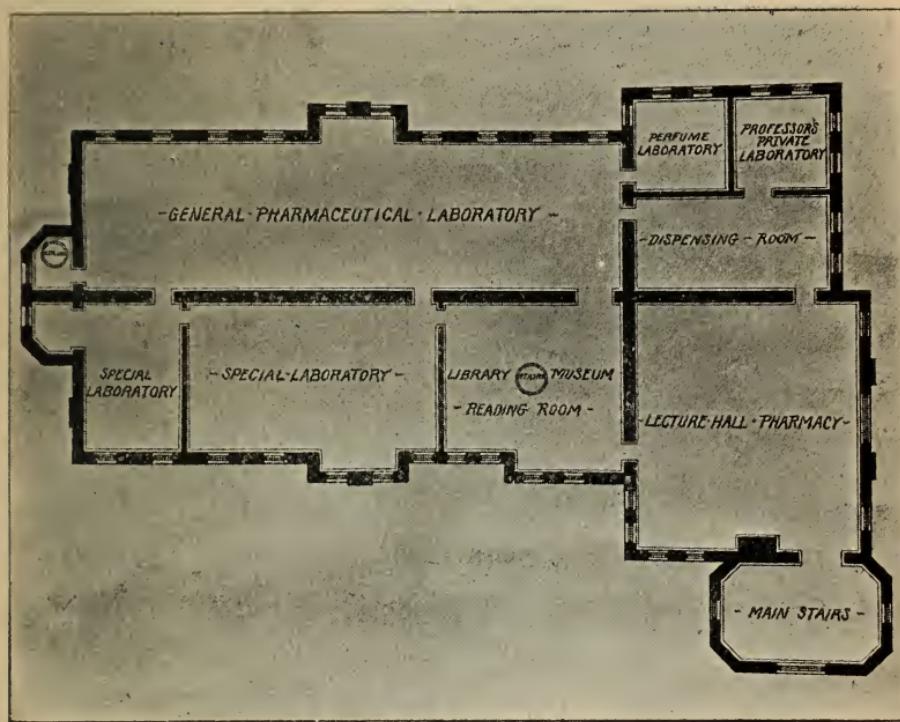




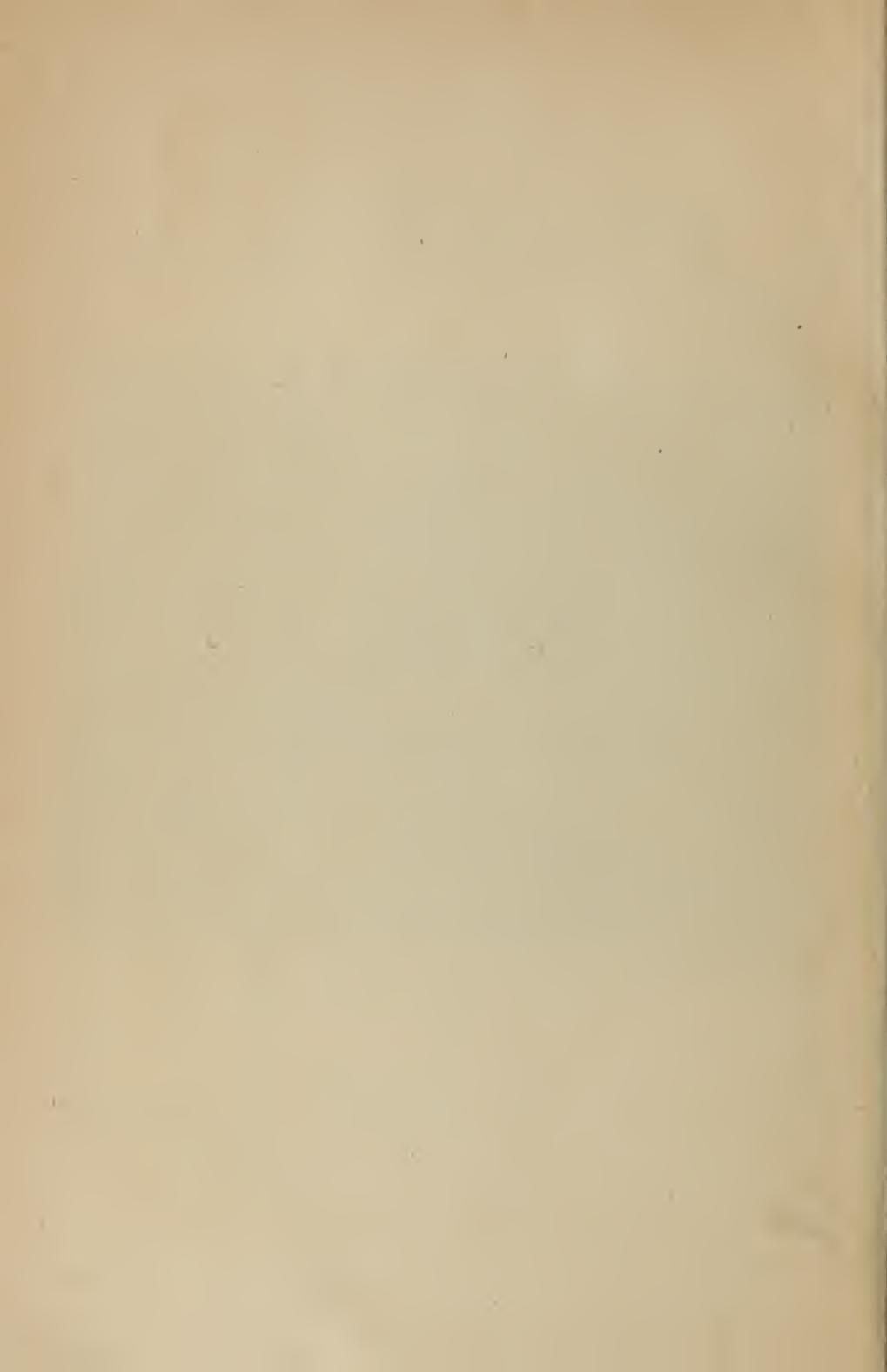
BASEMENT—CHEMICAL AND PHARMACEUTICAL LABORATORY



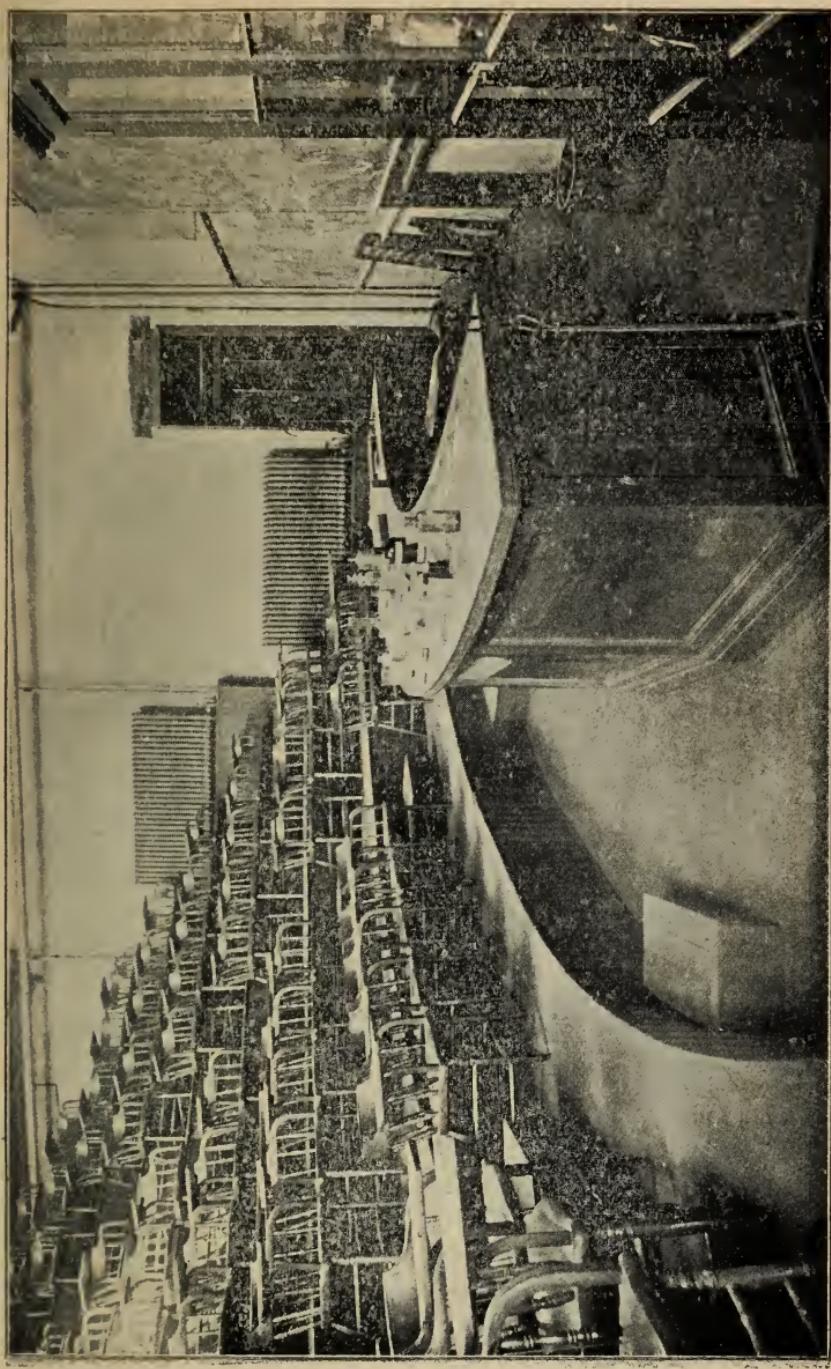
FIRST FLOOR—CHEMICAL AND PHARMACEUTICAL LABORATORY

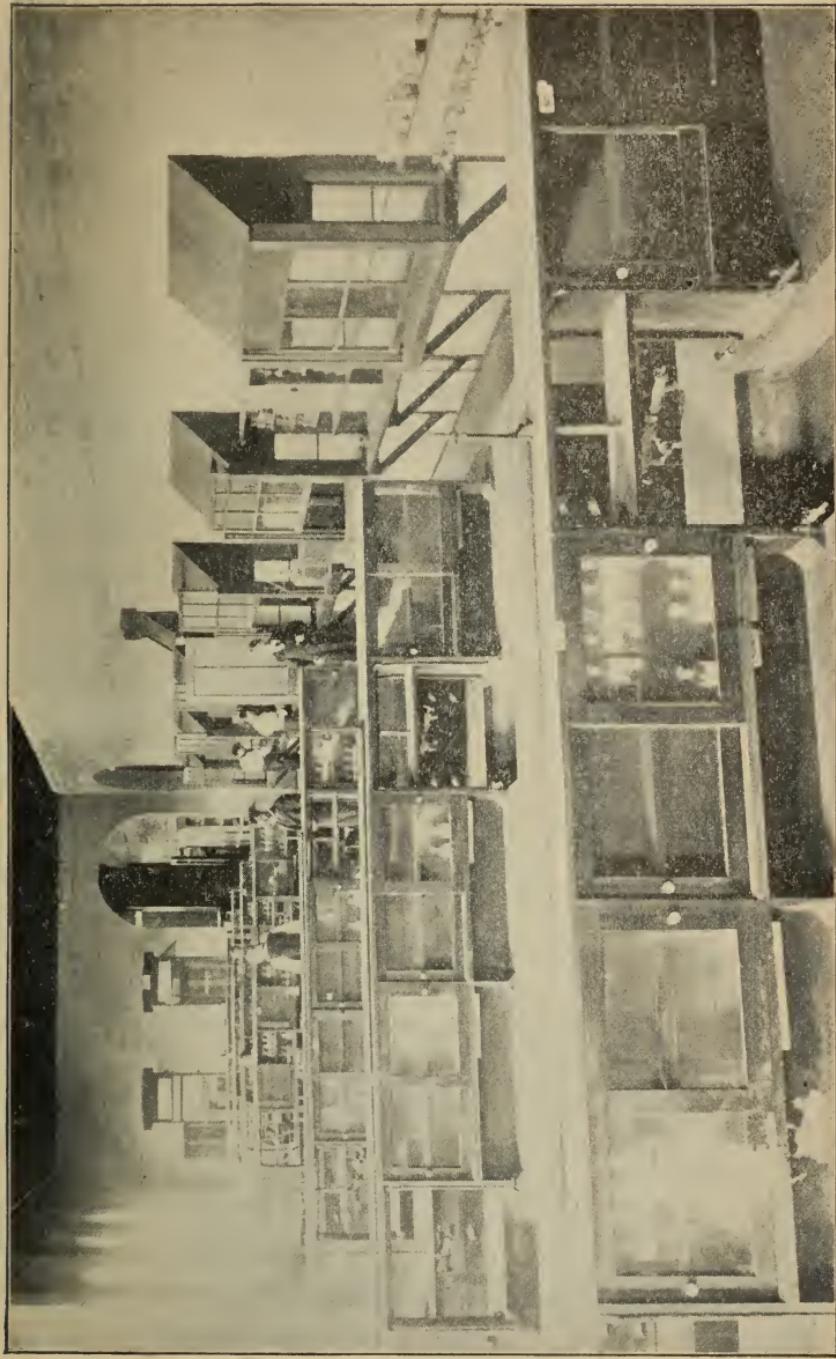


SECOND FLOOR—PHARMACEUTICAL LABORATORY

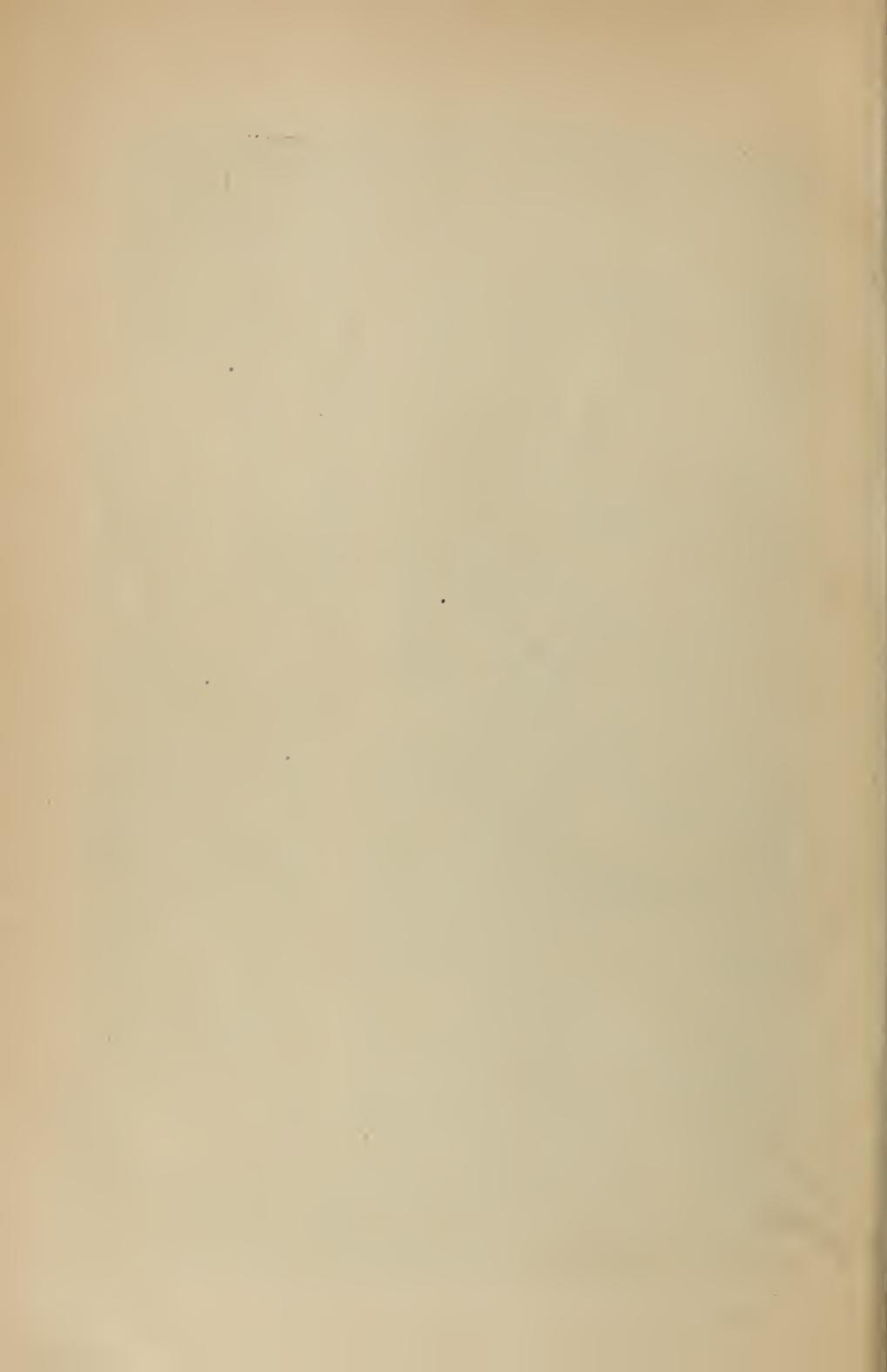


SECTION OF CHEMISTRY LECTURE HALL

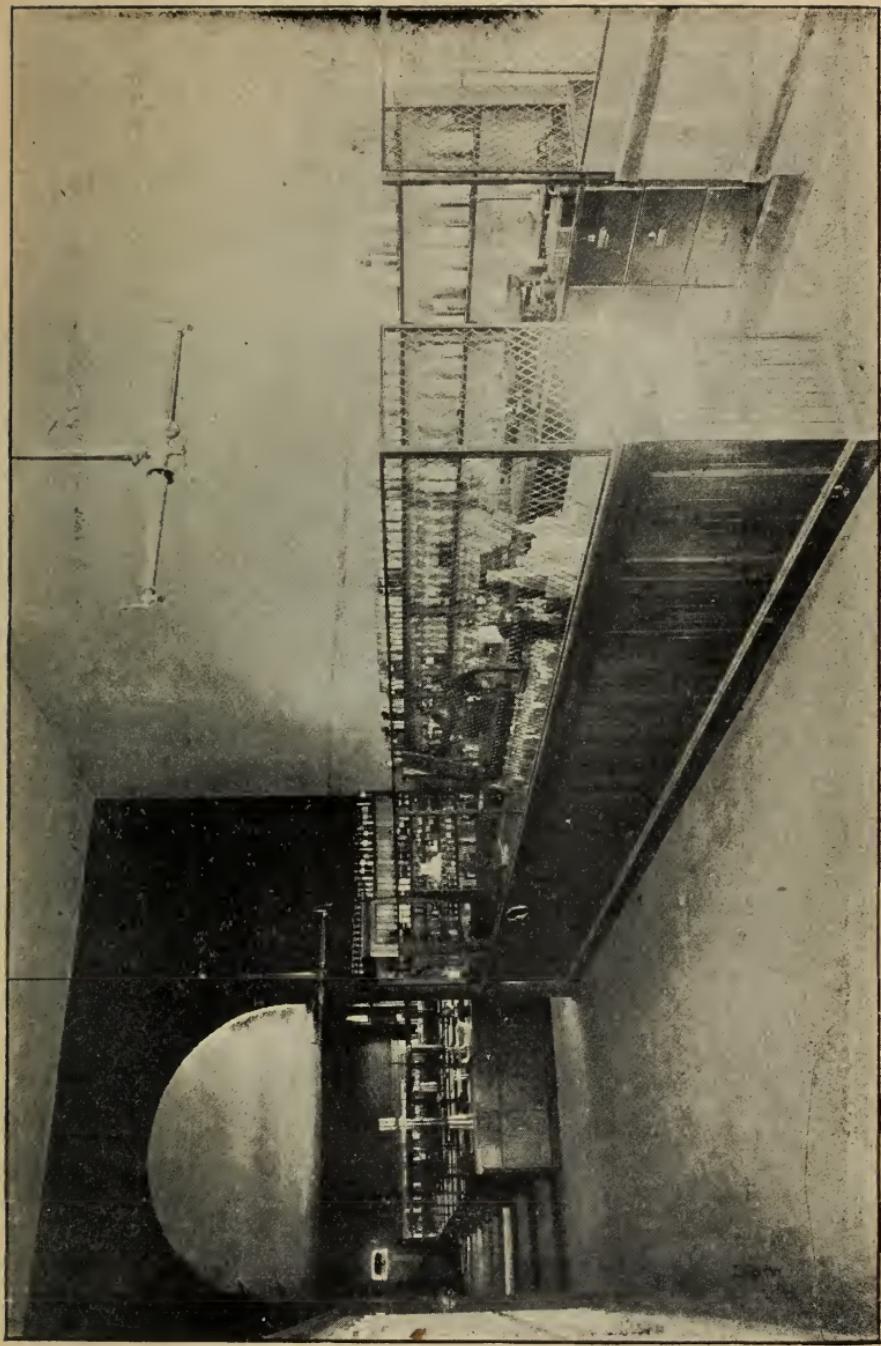




VIEW OF GENERAL CHEMICAL LABORATORY



PHARMACEUTICAL LABORATORY. DISPENSING ROOM



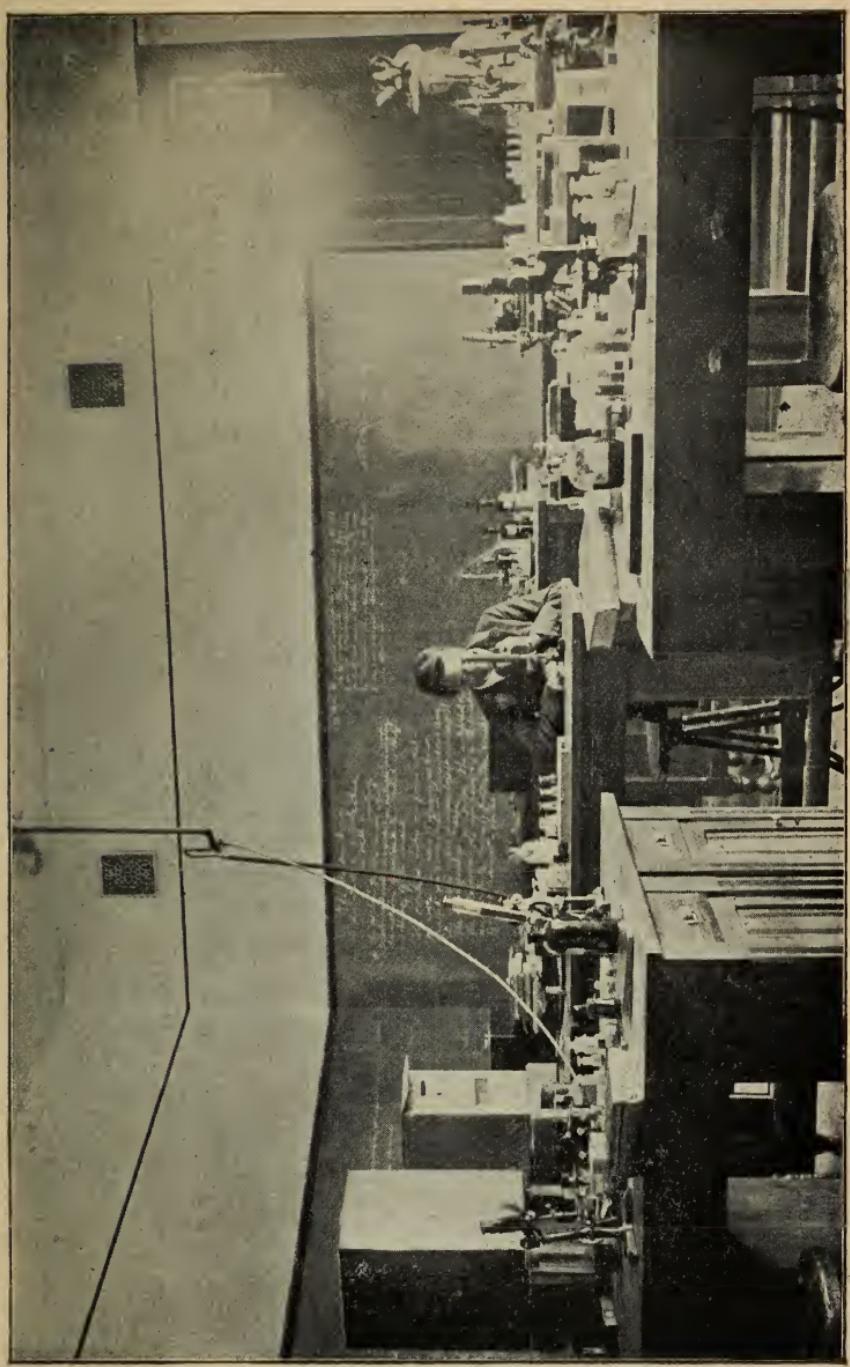


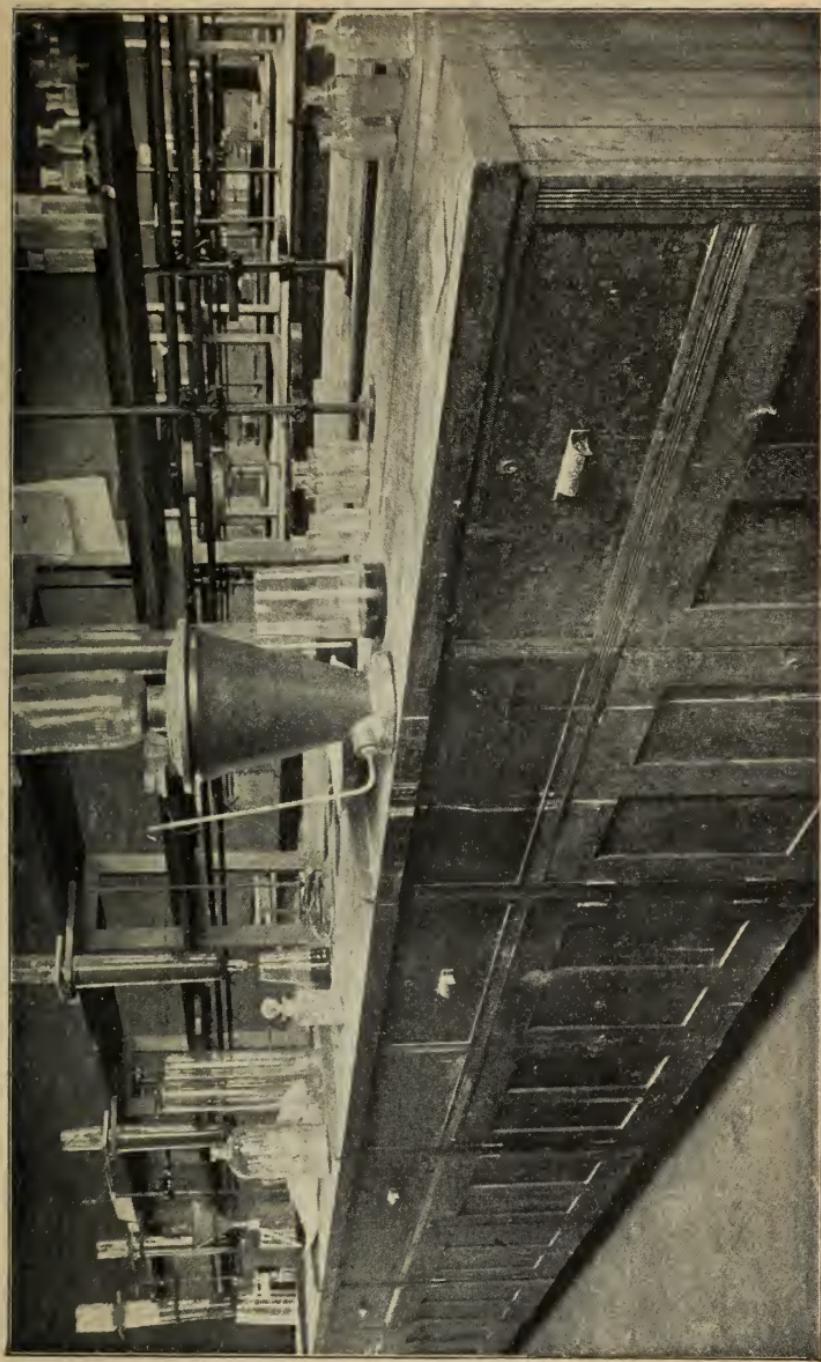
VIEW OF GENERAL PHARMACEUTICAL LABORATORY



VIEW IN A SPECIAL LABORATORY

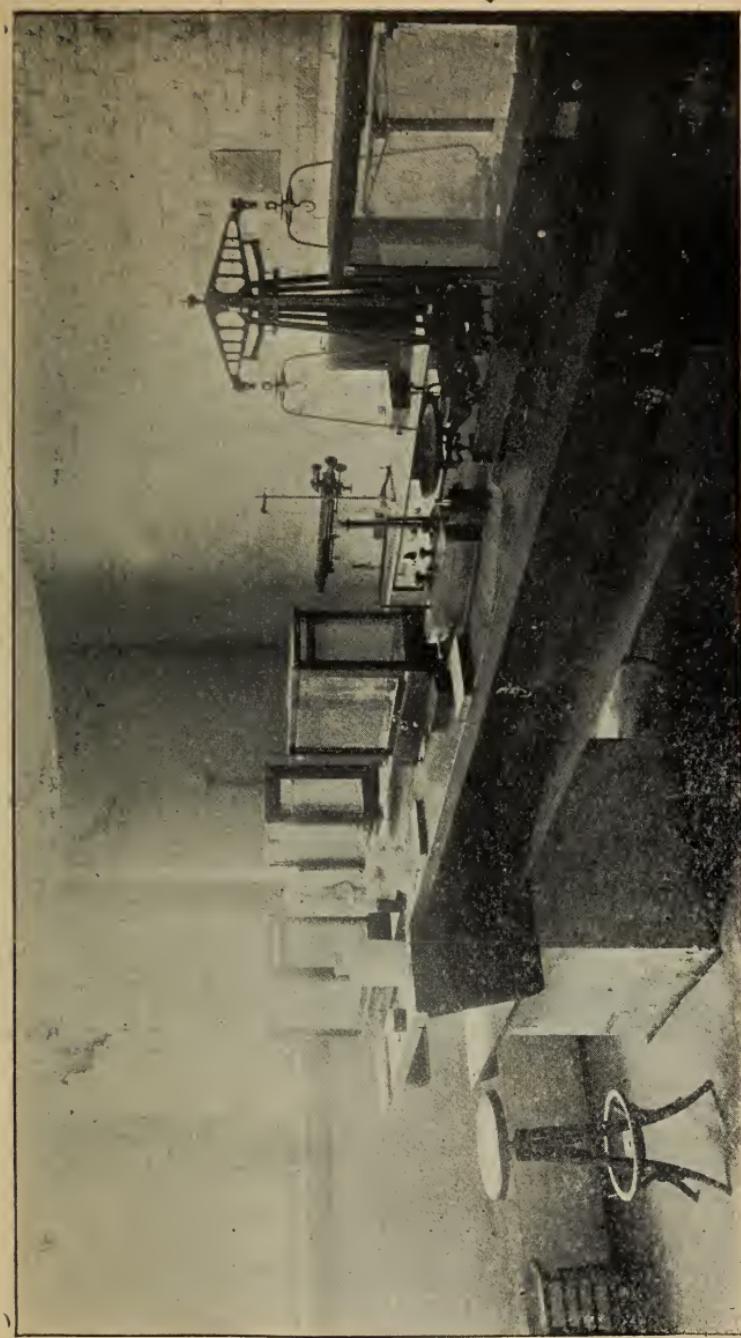
VIEW IN MICROSCOPICAL LABORATORY

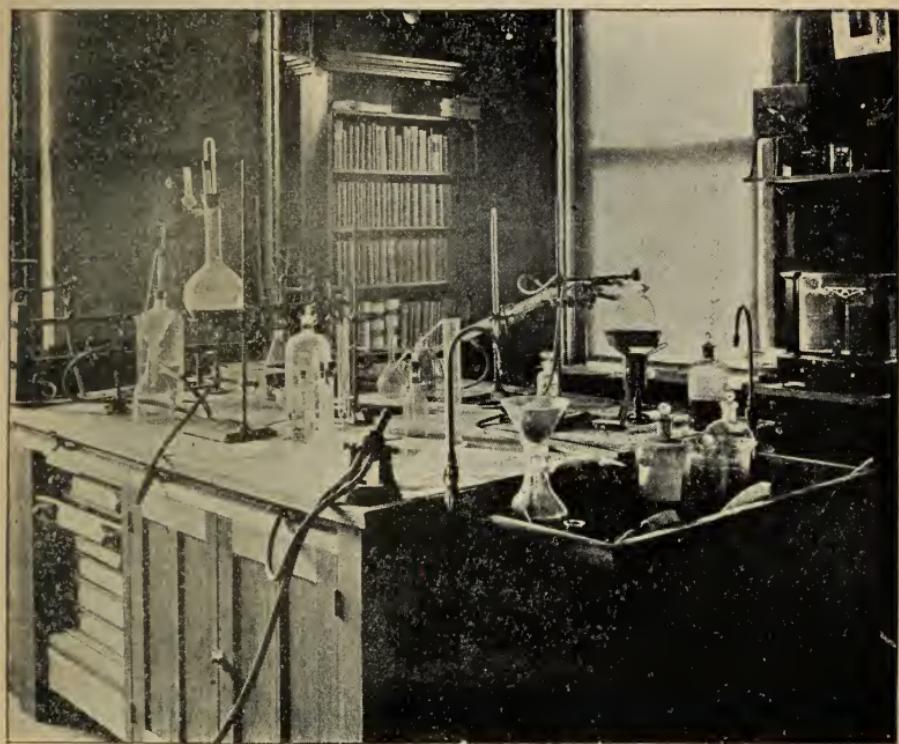




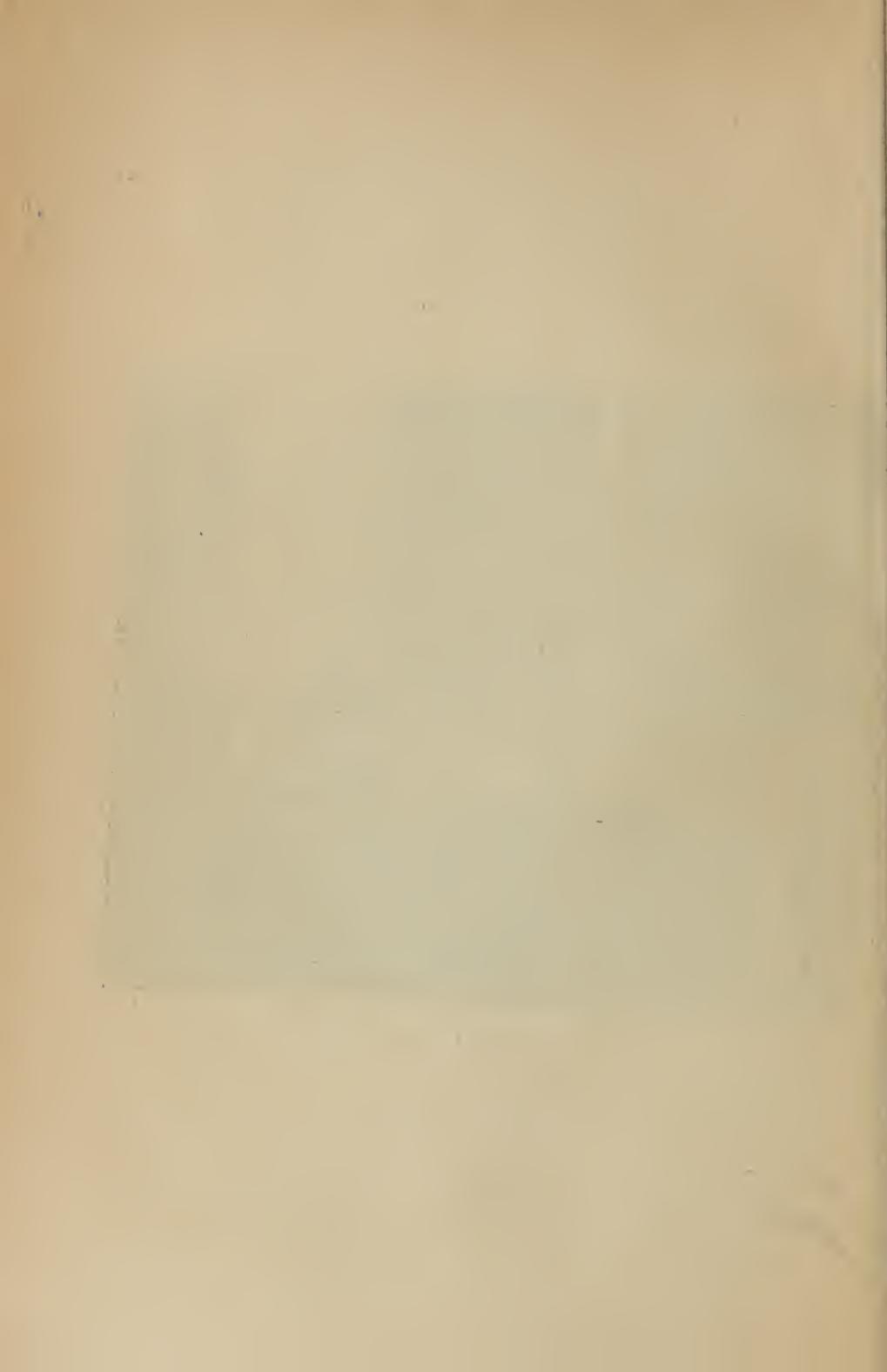
SECTION OF PHARMACEUTICAL LABORATORY, SHOWING INDIVIDUAL TABLES

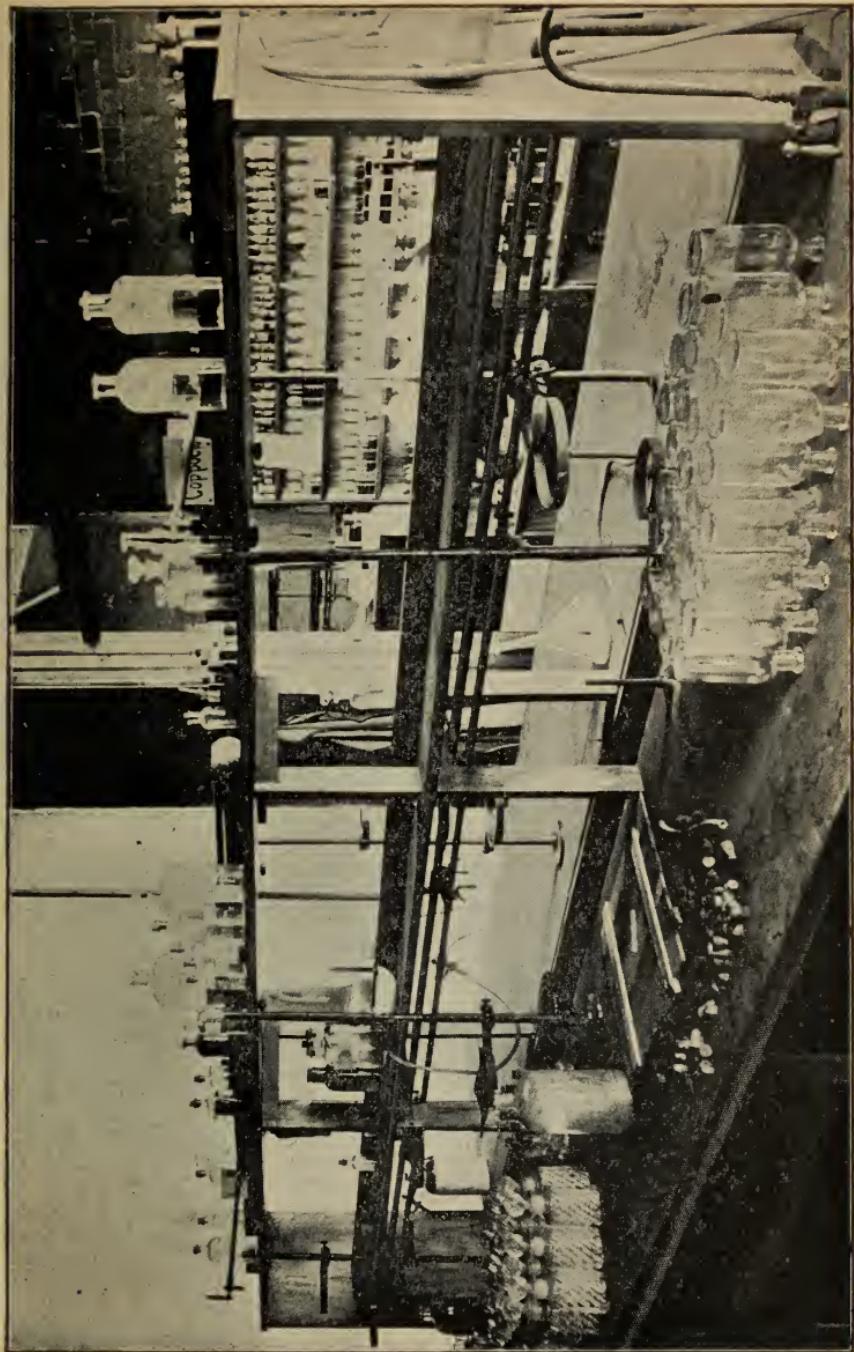
VIEW IN WEIGHING ROOM





VIEW IN A SPECIAL LABORATORY



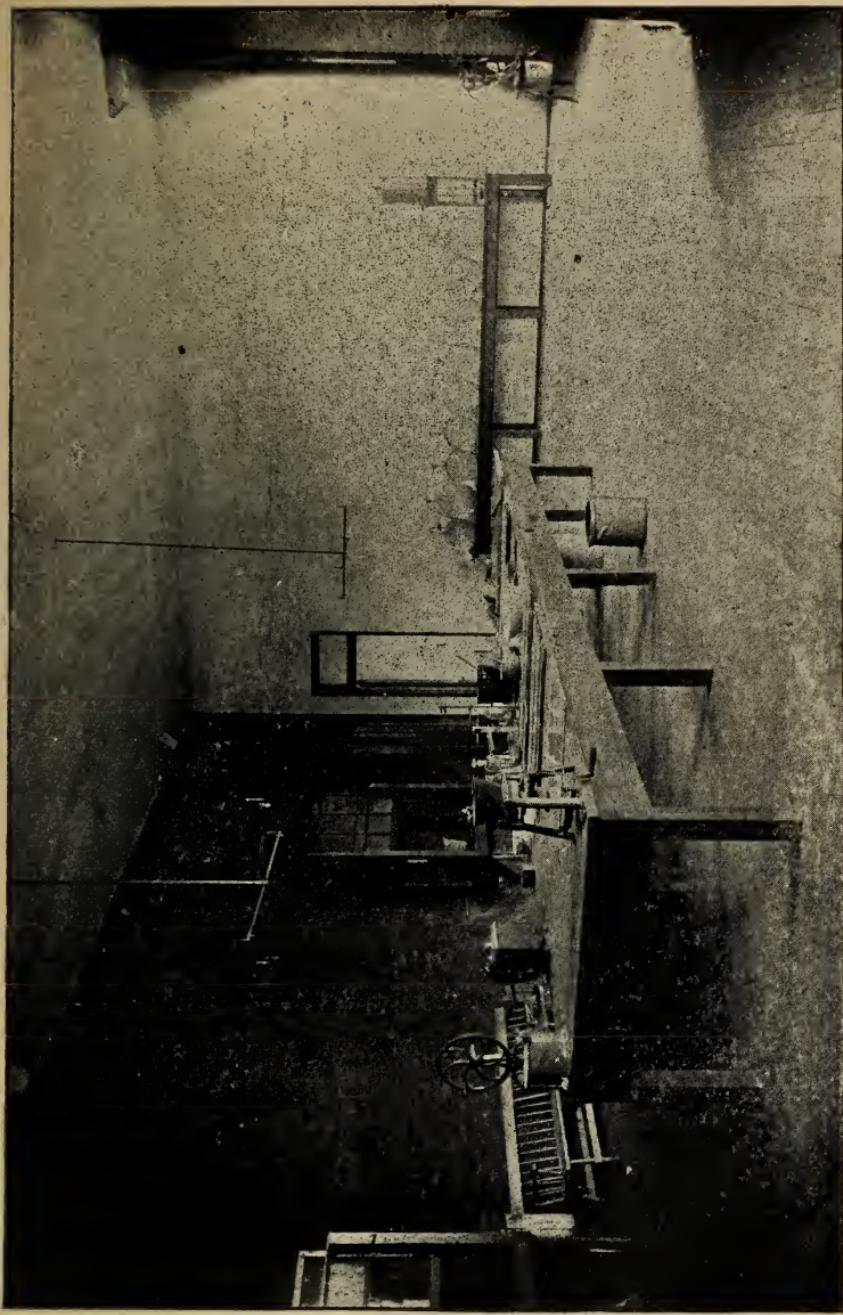


VIEW IN PERFUME LABORATORY



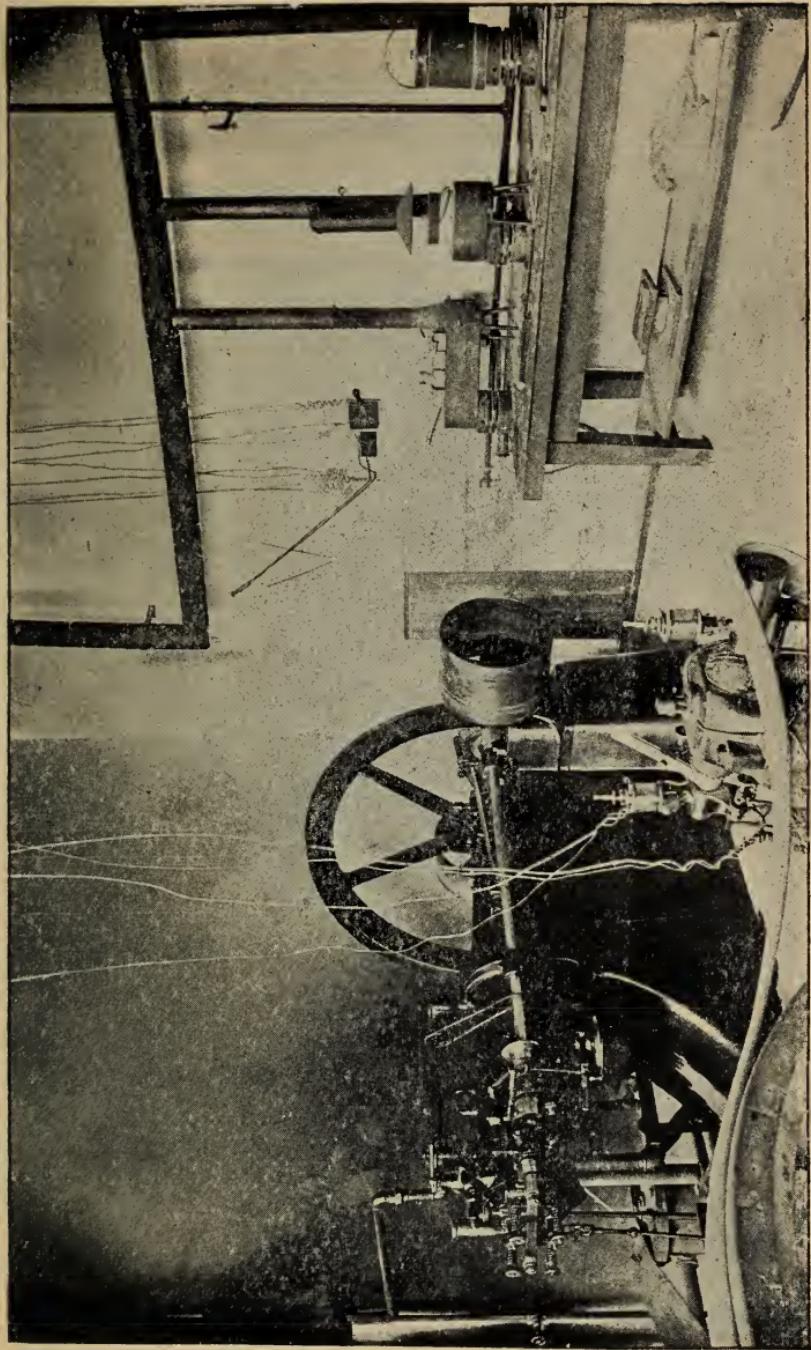
VIEW IN GRINDING ROOM

VIEW IN ONE OF THE SPECIAL PHARMACEUTICAL LABORATORIES



ASSAY FURNACES

ENGINE ROOM



THE STATE UNIVERSITY OF IOWA.

BOARD OF REGENTS.

His Excellency, **LESLIE M. SHAW**, Governor of the State.

RICHARD C. BARRETT,
Superintendent of Public Instruction.

SHIRLEY GILLILAND, Glenwood. W. R. MONINGER, Galvin.
HIRAM K. EVANS, Corydon. J. D. McCLEARY, Indianola.
WILLIAM D. TISDALE, Ottumwa. J. W. GARNER, Columbus Junction.
ALONZO ABERNETHY, Osage. PARKER K. HOLBROOK, Onawa.
HARVEY INGHAM, Algona. CHARLES E. PICKETT, Waterloo.
GEORGE W. CABLE, Davenport.

The University, as the head of the school system of the State, was provided for by a statute enacted by the First General Assembly in February, 1847, in accordance with the Constitution of the State adopted in the previous year. As at present organized, the University comprises the following departments:

THE COLLEGIATE DEPARTMENT.

Students are admitted to this department from most of the high schools of the State without examination. The curriculum embraces four general courses of study, the Classical, two Philosophical, and the general Scientific; and two technical courses, the course in Civil Engineering, and the course in Electrical Engineering.

The Board of Regents has accepted plans for an additional building for this department to be erected at a cost of \$150,000.

There is no preparatory school connected with this department. During the year 1897-98 there were fifty-one professors and assistants engaged in the work of instruction in this department, and the number of students enrolled was six hundred and seventy-four.

THE LAW DEPARTMENT.

The course in this department extends over two years of nine months each, and on its completion the degree LL. B. is conferred.

During the past year instruction was given by five resident professors, who spend their entire time in that work, and by four lecturers of distinction in the various branches of law.

The number of students enrolled in 1897-98 was two hundred and twenty-seven.

THE MEDICAL DEPARTMENT.

The course in this department requires four sessions of six months each, and on its completion the graduates receive the degree M. D., and are entitled to registration by the State Board of Medical Examiners.

During the year 1897-98 instruction was given by twenty-one professors and assistants, and the number of students enrolled was two hundred.

THE HOMŒOPATHIC MEDICAL DEPARTMENT.

Four sessions of six months each are required for graduation, when the degree M. D., is conferred, and the graduates are entitled to registration by the State Board of Medical Examiners.

During the year 1897-98, instruction was given by twenty professors and assistants, and the number of students enrolled was sixty-five.

THE DENTAL DEPARTMENT.

The full course requires attendance during three sessions of nine months each. On the completion of the course the degree D. D. S., is conferred, and the graduates are entitled to registration by the State Board of Examiners.

During the year 1897-98, instruction was given by twenty-two professors and assistants, and the number of students enrolled was one hundred and forty-eight.

THE PHARMACY DEPARTMENT.

The course in this department comprises two sessions of six months each. On its completion the degree Ph. G., is conferred.

During the year 1897-98, instruction was given by nine professors and assistants, and the number of students enrolled was thirty-six.

The total number of different students in all departments of the University during the year 1897-98 was over thirteen hundred.

The University is well supplied with laboratories and apparatus. Among the former may be mentioned the Chemical Laboratory, recently erected at an expense of \$50,000, in which building is also located the Pharmacy Laboratory; the Physical Laboratory; Laboratories for Animal Morphology and Physiology; the Histological Laboratory; the Botonical Laboratory; the Psychological Laboratory; the Pathological Laboratory; the Engineering Laboratories; the Dental Laboratories.

The Museum of Natural History contains large collections of specimens which are used in the work of instruction in Geology, in Zoology, in Botany, etc.

In 1897 the University lost by fire more than 25,000 volumes, but the libraries now contain over 16,000 volumes, and the 27th General Assembly passed an act levying a special tax for the rehabilitation of the general library. This tax will make about \$55,000 available for this purpose. New books will be purchased at once.

For further information as to any of the Departments address,

CHARLES A. SCHAEFFER,

President of the University



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